

LU 6084(US)



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of)
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Shahram Mihan et al.)
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Serial No.: **10/538,540**)
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Filed: **June 10, 2005**)
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For: **COLYMERS OF ETHYLENE WITH**)
ALPHA-OLEFINS)

Mail Stop RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

July 19, 2007

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

This Information Disclosure Statement is being filed together with a Request for Continued Examination under 37 C.F.R. § 1.114.

Independent consideration and acknowledgement of these references is respectfully requested.

No payment is believed to be due; however, the Commissioner is hereby authorized to charge USPTO deposit account 08-2336 any payment due and to credit any overpayment thereto.

Respectfully submitted,

SHAHRAM MIHAN ET AL.

July 19 2007
(Date)

By:

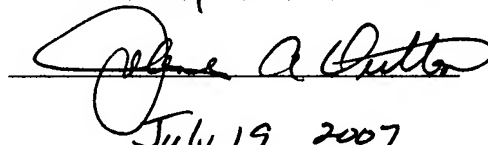
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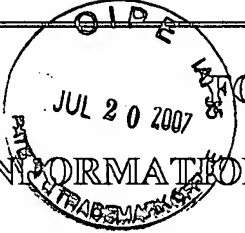
Enclosures

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I hereby certify that this correspondence is being deposited with sufficient postage thereon with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on July 19, 2007.


July 19 2007
Date of Signature

 FORM PTO-1449 INFORMATION DISCLOSURE CITATION					Atty Docket LU 6084 (US)	Serial No. 10/538,540	
					Applicant Shahram Miham et al.		
					Filing Date June 10, 2005	Group Art Unit 1713	
U.S. PATENT DOCUMENTS							
Examiner Initial		Document Number	Issue Date	Name	Class	Sub-Class	Filing Date
	AA	6,420,507	07/16/02	Kale et al.			
	AB	6,723,675	04/20/04	Wang			
FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Sub-Class	Trans-lation
	AC	899,278	03/03/99	EP			
	AD	608,369	08/03/94	EP			
OTHER (Including Author, Title, Date, Pertinent Pages, etc.)							
	AE	G. Kraus et al., "A Method for Characterization of Long-Chain Branched Polymers by GPC and Intrinsic Viscosity," <u>J. Polymer Sci.: Symposium No. 43</u> , p. 329-343 (1973)					
	AF	M. Pollard et al., "Observation of Chain Branching in Polyethylene in the Solid State and Melt via ¹³ C NMR Spectroscopy and Melt NMR Relaxation Time Measurements," <u>Macromolecules</u> , Vol. 37(3), p. 813,825 (2004)					
	AG	R. Koopmans, "Extrudate Swell of High Density Polyethylene. Part I: Aspects of Molecular Structure and Rheological Characterization Methods," <u>Polymer Engineering and Science</u> , Vol. 32(23), p. 1741-1749 (1992)					
	AH	J. Vega et al., "Small-Amplitude Oscillatory Shear Flow Measurements as a Tool To Detect Very Low Amounts of Long Chain Branching in Polyethylenes," <u>Macromolecules</u> , Vol. 31(11), p. 3639-3647 (1998)					
	AI	P. Wood-Adams et al., "Effect of Molecular Structure on the Linear Viscoelastic Behavior of Polyethylene," <u>Macromolecules</u> , Vol. 33(20), p. 7489-7499 (2000)					
	AJ	C. Piel et al., "Structure-Property Relationships of Linear and Long-Chain Branched Metallocene High-Density Polyethylenes Characterized by Shear Rheology and SEC-MALLS," <u>Macromolecular Chemistry and Physics</u> , Vol. 207, p. 26-38 (2006)					
	AK	W. Kaminsky et al., "Polymerization of Ethene and Longer Chained Olefins by Metallocene Catalysis," <u>Macromol. Symp.</u> , Vol. 226, p. 25-34 (2005)					
	AL	K. Klimke et al., "Optimisation and Application of Polyolefin Branch Quantification by Melt-State ¹³ C NMR Spectroscopy," <u>Macromol. Chem. Phys.</u> , Vol. 207, p. 382-395 (2006)					
	AM	S. Bin Wadud et al., "Shear and extensional rheology of sparsely branched metallocene-catalyzed polyethylenes," <u>J. Rheol.</u> , Vol. 44(5), p. 1151-1167 (2000)					
	AN	D. Yan et al., "Effect of long chain branching on rheological properties of metallocene polyethylene," <u>Polymer</u> , Vol. 40, p. 1737-1744 (1999)					
	AO	F. Stadler et al., "Influence of type and content of very long comonomers on long-chain branching of ethene- α -olefin copolymers," <u>Macromolecules</u> , Vol. 39(4), p. 1474-1500 (2006)					
Examine				Date Considered			
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.							

FORM PTO-1449

INFORMATION DISCLOSURE CITATION

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Applicant

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OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	BA	J. Janzen et al., "Diagnosing long-chain branching in polyethylenes," <u>Journal of Molecular Structure</u> , Vol. 485-486, p. 569-584 (1999)
	BB	C. Gabriel et al., "Analytical and rheological characterization of long-chain branched metallocene-catalyzed ethylene homopolymers," <u>Polymer</u> , Vol. 43, p. 6383-6390 (2002)
	BC	B. Zimm et al., "The Dimension of Chain Molecules Containing Branches and Rings," <u>The Journal of Chemical Physics</u> , Vol. 17(12), p. 1301-1314 (1949)
	BD	Barth, H. G., & Mays, J. W. (1991). <u>Modern methods of polymer characterization</u> . Chemical analysis, v. 113. New York: Wiley.
	BE	N. Hadjichristidis et al., "Well-Defined, Model Long Chain Branched Polyethylene. 1. Synthesis and Characterization," <u>Macromolecules</u> , Vol. 33(7), p. 2424-2436 (2000)
	BF	E. Kokko et al., "Long-Chain Branched Polyethylene via Metallocene-Catalysis: Comparison of Catalysts," Contribution in <u>Organometallic Catalysts and Olefin Polymerization</u> by R. Blom et al., p. 335-345 (2001)
	BG	J. Stange et al., "Rheological behavior of blends from a linear and a long-chain branched polypropylene," <u>J. Rheol.</u> , Vol. 49(5), p. 1059-1079 (2005)
	BH	H. Münstedt et al., "Rheological measuring techniques and their relevance for the molecular characterization of polymers," <u>J. Non-Newtonian Fluid Mech.</u> , Vol. 128, p. 1-8 (2005)
	BI	T. McLeish et al., "Molecular constitutive equations for a class of branched polymer: The pom-pom polymer," <u>J. Rheol.</u> , Vol. 42(1), p. 81-110 (1998)
	BJ	I. Vittorias et al., "Detection and quantification of industrial polyethylene branching topologies via Fourier-transform rheology, NMR and simulation using the Pom-pom model," <u>Rheol. Acta</u> , Vol. 46, p. 321-340 (2007)
	BK	E. van Ruymbeke et al., "A sensitive method to detect very low levels of long chain branching from the molar mass distribution and linear viscoelastic response," <u>J. Rheol.</u> , Vol. 49(6), p. 1-18 (2005)
	BL	S. Trinkle et al., "Van Gorp-Palmen Plot II-classification of long chain branched polymers by their topology," <u>Rheol Acta</u> , Vol. 41, p. 103-113 (2002)
	BM	D. Lohse et al., "Well-Defined, Model Long Chain Branched Polyethylene. 2. Melt Rheological Behavior," <u>Macromolecules</u> , Vol. 35(8), p. 3066-3075 (2002)
	BN	C. Gabriel et al., "Influence of long-chain branches in polyethylenes on linear viscoelastic flow properties in shear," <u>Rheol Acta</u> , Vol. 41, p. 232-244 (2002)
	BO	B. Bersted et al., "Prediction of Rheological Behavior of Branched Polyethylene from Molecular Structure," <u>Journal of Applied Polymer Science</u> , Vol. 26, p. 1001-1014 (1981)
	BP	B. Bersted, "On the Effects of Very Low Levels of Long Chain Branching on Rheological Behavior in Polyethylene," <u>J. of Applied Polymer Science</u> , Vol. 30, p. 3751-3765 (1985)

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OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	CA		H. Park et al., "Influence of long-chain branching on time-pressure and time-temperature shift factors for polystyrene and polyethylene," <u>Rheol Acta</u> , Vol. 46, p. 153-159 (2006)
	CB		C. Gabriel et al., "Influence of molecular structure on rheological properties of polyethylenes," <u>Rheol Acta</u> , Vol. 37, p. 7-20 (1998)
	CC		G. Schlatter et al., "Fourier Transform Rheology of Branched Polyethylene: Experiments and Models for Assessing the Macromolecular Architecture," <u>Macromolecules</u> , Vol. 38, p. 6492-6544 (2005)
	CD		H. Münstedt et al., "Influence of molecular structure on rheological properties of polyethylenes; Part II. Elongational behavior," <u>Rheol Acta</u> , Vol. 37, p. 21-29 (1998)
	CE		I. Vittorias et al., "Detection of Long-Chain Branching in Polyolefins via Fourier-Transform Rheology and Finite Element Simulations," <u>Macromol. Mat. Eng.</u> , p. 115-120 (2007)
	CF		G. Georgiou, "Stick-Slip Instability," <u>Polymer Processing Instabilities</u> edited by S. Hatzikiriakos & S. Migler, Dekker, NY, p. 161-206 (2005)
	CG		S. Wang et al., "Exploring molecular origins of sharkskin, partial slip, and slope change in flow curves of linear low density polyethylene," <u>J. Rheol.</u> , Vol. 40(5), p. 875-898 (1996)
	CH		S. Wang et al., Stick-slip transition in capillary flow of linear polyethylene: 3. Surface conditions," <u>Rheol Acta</u> , Vol. 36, p. 128-134 (1997)
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